

WAS LEWIS EVANS OR BENJAMIN FRANKLIN THE
FIRST TO RECOGNIZE THAT OUR NORTHEAST
STORMS COME FROM THE SOUTHWEST?

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The account of the "Middle British Colonies in America," prepared by Lewis Evans and published in Philadelphia in 1747, contains a remarkably clear and appreciative description of the main features of New Jersey and Pennsylvania. It is illustrated by a map which, like the text, bears witness to an extraordinary acuteness of observation and as well to an unusual power of generalization on the part of the author, who must be ranked as an early leader among American geographers. The map contains a number of explanatory legends, inserted where topographical details were wanting; and here we find, among various items, a significant statement regarding the movement of storms: "All our great storms begin to leeward; thus a NE storm shall be a day sooner in Virginia than in Boston." This brief statement has been taken to be the first recognition, as it surely seems to be the first published announcement of the progressive movement of storms, on which so much of the modern art of weather prediction depends. The statement is however not easily accessible to citation, for apart from the great rarity of complete copies of the first edition of Evans' essay—the map being lost from some of the few copies known to me—the map in the second edition was amended by replacing some of the legends with newly gathered topographical data; and among the matter thus removed was the statement above quoted concerning the movement of storms.

Evans' publishers were Franklin and Hall, and there is good reason to believe, as has already been pointed out by students of this question, that it was Franklin and not Evans who provided the statement concerning storms, along with some account of lightning and electricity, subjects with which Evans was not particularly

concerned, but with which Franklin was much occupied. A reference to the letters in Sparks' "Life of Franklin" leaves no doubt on this point. In the very year of the publication of the first edition of Evans' essay, Franklin wrote to a friend as follows:

"We frequently have along the North American coast storms from the northeast, which blow violently sometimes three or four days. Of these, I have had a very singular opinion for some years, *viz*: that, though the course of the wind is from northeast to southwest, yet the course of the storm is from southwest to northeast; the air is in violent motion in Virginia before it moves in Connecticut, and in Connecticut before it moves at Cape Sable." It is a condensed duplicate of this statement that appears on Evans' map.

A question later arose as to the date when this "very singular opinion" had been formed. It was thus brought out that the observations which led to the opinion were made in connection with an eclipse of the moon, which Franklin failed to see in Philadelphia because the sky was covered with the clouds of a northeast storm, and yet which his brother, Thomas, successfully observed in Boston, where the northeast wind and its clouds did not occur until some hours after the eclipse. From this little hint, which many an investigator might have allowed to pass by without further consideration, Franklin gained the idea that the storm might possibly work its way against the wind; and this idea he confirmed by writing to a correspondent in Virginia, from whom he obtained the report that the storm there had begun sooner than it had in Philadelphia. The date of the lunar eclipse was afterwards determined to be in the year 1743. It would thus appear that Franklin contributed a statement of his discovery to Evans' map, making no claim whatever for recognition or priority; and indeed, suffering the statement to be obliterated without remonstrance, so far as now appears, when the second edition of the map was published. Generous as he thus showed himself, to the point of indifference, it is still fitting that we at this time should take pains to give credit where credit is due.

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